

Bharati Vidyapeeth's
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MCA-FIRST SEMESTER, Model Question Paper-II

Table with 2 columns: Paper Code: MCA - 109, Subject: Java Programming; Time: 3 Hours, Maximum Marks: 75; Note: Attempt FIVE questions in all. Question No. 1 is compulsory. Choose 1 question from each unit.

- 1. Answer all the following questions briefly:- 2.5 x 10 = 25
(a) Justify why isn't it advised to rely on finalize for releasing resources held by an object. 2.5
(b) State advantages of custom class loaders. 2.5
(c) Explain the concept of try with resources. 2.5
(d) Illustrate what are filter streams? Explain their need. 2.5
(e) The information related to an event is bundled by the ----- in instance of a subclass of ----- and then passed on to ----- 2.5
(f) State the advantage of serialization over externalization and vice versa. 2.5
(g) Identify two filter streams that can be used to read / write intrinsic data types. 2.5
What is the difference between the two?
(h) Differentiate between KeyPressed and KeyTyped events. 2.5
(i) Justify why are Class I JDBC drivers not supported anymore. 2.5
(j) Give examples of situations when you would use a) HashSet b) TreeSet. 2.5

UNIT I

- 2. (a) State any three applications of bytecode instrumentation. Detail its structure as well. 6.5
(b) Draw the memory map of an array of objects in Java. Differentiate between the usages of 1D and 2D arrays. 6
3. (a) Differentiate between abstract classes and interfaces. When would you use what? 6.5
(b) Identify and implement an inheritance relationship in Railway Reservation system (pick entities specific to the problem domain). 6

UNIT II

- 4. (a) Create a java program for the following- 6
a) Reverse a string word by word
b) Input two dates and check if the first date falls after the second or not.
(b) Discuss what are unchecked exceptions. State the two categories of unchecked exceptions. 6.5
5. (a) Elaborate what are daemon threads. Give an example when would you declare a thread daemon. 6.5
(b) Explain stream and reader class hierarchies in java.io package. 6

UNIT III

6. (a) Create a user defined checked exception NotEnoughStockException. Throw an instance of the exception in sellProduct method of Product class. 6.5
- (b) Illustrate in brief short notes on 6
- (1) Comparisons of Swing with AWT
- (2) JFC.
7. (a) Create a client server application that uses UDP to query meaning of a term stored in a text file. State your assumptions clearly. 12.5

UNIT IV

8. Elaborate what are the advantages of PreparedStatement over SimpleStatement. When would you use a SimpleStatement? 12.5
9. Create a class Account whose instances may be stored in a HashSet. Make sure two instances of Account having identical data values are treated to be identical. Also demonstrate addition and retrieval of account instances to the Set. 12.5

***** Wish you Luck! *****